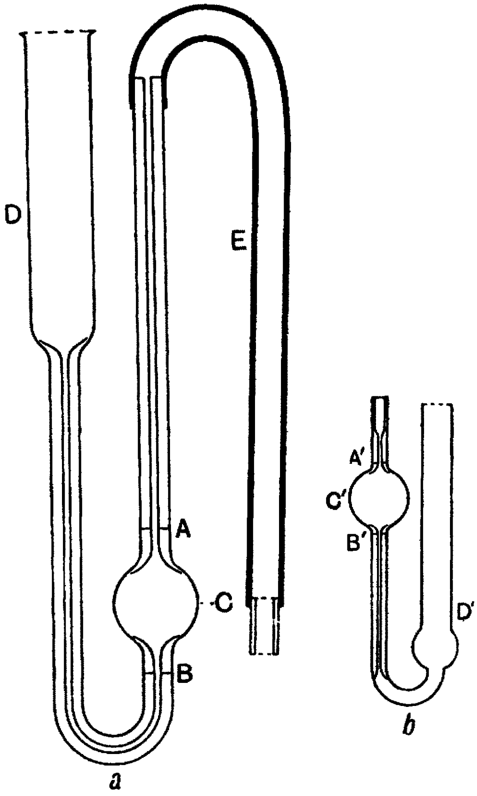
View Article Online / Journal Homepage / Table of Contents for this issue

Published on 01 January 1918. Downloaded on 30/10/2014 19:20:35.

BACTERIOLOGICAL, PHYSIOLOGICAL, ETC.

Viscosity of Blood. J. W. Trevan. (*Biochem J.*, 1918, **12**, 60-71.)—The author has established mathematical relationships between the total volume of the corpuscles in blood, the viscosity of the plasma, and the viscosity of the whole blood. Capillary viscosimeters were used of the pattern shown in Fig. 1, *a*. They are blown from tubing 0·8 mm. diameter, using 2 c.c. and 0·2 mm., holding 1 c.c. for the small form. In the large model the bulb *C* holds rather less than 1 c.c. The funnel *D* is made from a ½ inch test-tube drawn out and fused on. Two c.c. of blood mixed with a little hirudin to prevent coagulation are placed in *D* and allowed to run into *C*. The instrument is then put upright into a thermostat at 40° C. for ten minutes. The bulb *C* is then emptied into *D* by blowing slowly down the rubber tube *E* until all the blood is in *D*. The corpuscles are mixed with the plasma by blowing a gentle stream of air through or by stirring with a coiled wire, and the time of flow from *B* to *A* noted with stop-watch, the blood in *D* being all the time stirred with a coiled wire. It is important that there be no constriction in the tube between the expanded portion and the capillary itself, or turbulent flow is set up leading to considerable error. The form of viscosimeter usually adopted with the measuring bulb on the pressure side (A^1, B^1, Fig. 1, *b*) prevents stirring, leading to



View Article Online

differences in "apparent" viscosity found between large tubes and small, but not encountered in the form used (Fig. 1, *a*).

The viscosity of blood is directly proportional to that of the plasma for the same volume of corpuscles over a wide range of plasma viscosity. H. F. E. H.

Published on 01 January 1918. Downloaded on 30/10/2014 19:20:35.